

# INTERNATIONAL SEARCH REPORT

International application No.  
PCT/KR2003/002169

## A. CLASSIFICATION OF SUBJECT MATTER

IPC7 G11B 7/13

According to International Patent Classification (IPC) or to both national classification and IPC

## B. FIELDS SEARCHED

Minimum documentation searched (classification system followed by classification symbols)

IPC7 G02B 7/04 G11B 7/00 G11B 7/095

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

Electronic data base consulted during the international search (name of data base and, where practicable, search terms used)

WPI, PAJ, "DVD, CD, photo, detector, tracking, focusing, differential, phase"

## C. DOCUMENTS CONSIDERED TO BE RELEVANT

| Category* | Citation of document, with indication, where appropriate, of the relevant passages                | Relevant to claim No. |
|-----------|---|-----------------------|
| Y         | US 6,493,296 B1(Sony Corp.) 10 Dec. 2002<br>See abstract, Fig. 3                                  | 1-6                   |
| Y         | US 6,507,009 B1(Hitachi, Ltd.) 14 Jan. 2003<br>See Fig. 5-7, Fig. 12-13                           | 1-6                   |
| A         | US 6,064,637 A(Industrial Technology Research Institute) 16 May. 2000<br>See abstract, Fig. 8a-8b | 1                     |
| A         | US 6,285,635 B1(Matsushia Electric Industrial Co., Ltd.) 4 Sep. 2001<br>See Fig. 1-2              | 1                     |
| A         | US 5,914,925 A(Eastman Kodak Company) 22 Jun. 1999<br>See Fig. 4                                  | 1                     |
| A         | US 6,292,453 B1(Sony Corp.) 18 Sep. 2001<br>See Fig. 4  | 1                     |
| A         | US 6,424,606 B1(Creative Technology LTD) 23 Jul. 2002<br>See Fig. 3                               | 1                     |

☐ Further documents are listed in the continuation of Box C.

☒ See patent family annex.

\* Special categories of cited documents:

"A" document defining the general state of the art which is not considered to be of particular relevance

"E" earlier application or patent but published on or after the international filing date

"L" document which may throw doubts on priority claim(s) or which is cited to establish the publication date of citation or other special reason (as specified)

"O" document referring to an oral disclosure, use, exhibition or other means

"P" document published prior to the international filing date but later than the priority date claimed

"T" later document published after the international filing date or priority date and not in conflict with the application but cited to understand the principle or theory underlying the invention

"X" document of particular relevance; the claimed invention cannot be considered novel or cannot be considered to involve an inventive step when the document is taken alone

"Y" document of particular relevance; the claimed invention cannot be considered to involve an inventive step when the document is combined with one or more other such documents, such combination being obvious to a person skilled in the art

"&" document member of the same patent family

Date of the actual completion of the international search

10 MAY 2004 (10.05.2004)

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**INTERNATIONAL SEARCH REPORT**

Information on patent family members

International application No.

PCT/KR2003/002169

| Patent document<br>cited in search report | Publication<br>date | Patent family<br>member(s)   | Publication<br>date  |
|---|---------------------|--|--|
| US 6,493,296 B1                           | 10-12-2002          | JP 2000-149298 A<br>KR 2000-035361 A<br>SG 89303 A1<br>TW 459222 B                         | 30-05-2000<br>26-06-2000<br>18-06-2002<br>11-10-2001               |
| US 6,507,009 B1                           | 14-01-2003          | JP 3463003 B2<br>JP 2000-082226 A<br>JP 2003-151162 A<br>JP 2003-178482 A<br>US 6721242 B2 | 05-11-2003<br>21-03-2000<br>23-05-2003<br>27-06-2003<br>13-04-2004 |
| US 6,064,637 A                            | 16-05-2000          | TW 382704 B  | 21-02-2000   |
| US 6,285,635 B1                           | 04-09-2001          | JP 11-176073 A<br>TW 388871 B<br>US 6493304 B2<br>US 2002-080700 A1                        | 02-07-1999<br>01-05-2000<br>10-12-2002<br>27-06-2002               |
| US 5,914,925 A                            | 22-06-1999          | None   |  |
| US 6,292,453 B1                           | 18-09-2001          | CN 11229798 B<br>CN 1197268 A<br>JP 10-188301 A  | 01-10-2003<br>28-10-1998<br>21-07-1998                             |
| US 6,424,606 B1                           | 23-07-2002          | TW 540033 B  | 01-07-2003   |